

Concerning the Motion of FTEs and Attendant Signatures

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We employ the *Cooling et al.* [2001] model to predict the location, orientation, and motion of flux transfer events (FTEs) generated along finite length component and antiparallel reconnection lines for typical solar wind plasma conditions and various interplanetary magnetic field (IMF) orientations in the plane perpendicular to the Sun-Earth line at the solstices and equinoxes. For duskward and northward or southward IMF orientations, events formed by component reconnection originate along reconnection curves passing through the subsolar point that tilt from southern dawn to northern dusk. They maintain this orientation as they move either northward into the northern dawn quadrant or southward into the southern dusk quadrant. By contrast, events formed by antiparallel reconnection originate along reconnection curves running from northern dawn to southern dusk in the southern dawn and northern dusk quadrants and maintain these orientations as they move antisunward into both these quadrants. Although both the component and antiparallel reconnection models can explain previously reported event orientations on the southern dusk magnetopause during intervals of northward and dawnward IMF orientation, only the component model explains event occurrence near the subsolar magnetopause during intervals when the IMF does not point due southward.